ISSUED

WP 05-WH1410

Revision 13-FR1

Adjustable Center of Gravity Lift Fixture

Technical Procedure

EFFECTIVE DATE: 05/24/17

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APPROVED FOR USE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
10	07/20/10	Added line to section 1 of attachment 1 regarding Lifting Legs.
11	09/08/14	Updated references in the Reference table and in the body of the document. Added steps 3.0 through 7.0 to Prerequisite Actions. Reword step 1 of attachment 1 for clarity. Added new step 2 to attachment 1 on inspection of guards. Moved Step 4, Verify Counterweights, of attachment 4 to be a substep under new Step 4, Power and Controls. Added to steps 6 and 7 of attachment 1 to ensure free rotation of more than 2" has not occurred.
12	10/12/15	Re-format per requirements of WP 15-PS.2.
13	08/10/16	Complete rewrite. • Removed “Operation” and “Shutdown” sections. Waste Handlers cannot safely place keep (i.e., circle/slash) while operating equipment. • Rearranged and clarified Attachment 1 preoperational check steps. • Emphasized the 6-ton crane preop check precedes the ACGLF check (step 5.1.3). • Changed from reference use to continuous use. • Expanded on HWFP delinquent inspection action step and marked mode change step .
13-FR1	05/24/17	• Added a visual inspection to attachment 1.

1.0 INTRODUCTION

This procedure provides the requirements for preoperational inspections of the adjustable center of gravity lift fixtures (ACGLF) at the Waste Isolation Pilot Plant (WIPP).

Performance of this procedure, or selected sections of the procedure, implements inspection requirements of the Hazardous Waste Facility Permit (HWFP) relative to the scope of, and as defined in, this document.

Performance of this procedure generates the following quality assurance record. Any records generated are handled in accordance with departmental Records Inventory and Disposition Schedules.

- Equipment Logbook

2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
Title 40 Code of Federal Regulations (CFR) §264.15, "General Inspection Requirements"	✓		
DOE Standard 1090-2004, *Hoisting and Rigging*	✓		
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088-TSDF		✓	**$**
WP 04-AD3011, *Equipment Lockout/Tagout*	✓		
WP 05-WH1011, *CH Waste Processing*		✓	
WP 05-WH1101, *Surface Transuranic Mixed Waste Handling Area Inspections*		✓	
WP 05-WH1407, *6-Ton Bridge Cranes 41-T-151 (A, B, C, D)*		✓	
WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description*	✓		
WP 15-GM1002, *Issues Management Program Processing of WIPP Forms*		✓	
EDS 2014-060 to 064	✓		
EDS 2014400 to 430	✓		
STDJHA-807, *Adjustable Center of Gravity Lift Fixture Operations*	✓		

3.0 PRECAUTIONS AND LIMITATIONS

3.1 If this procedure cannot be performed as written, contact the Waste Handling Engineer (WHE).

3.2 Prior to lifting an ACGLF, counterweights are rotated to balance position of 178° to 182° (target = 180°) and 2° to 358° (target = 0/360°). Failure to rotate counter weights on ACGLF to balance position may cause ACGLF to swing uncontrollably.

3.3 The ACGLF legs must be locked into the load/lift fixture prior to placing any load weight on the ACGLF.

3.4 The ACGLF is designed to lift loads using special lifting legs. Lifting loads without using specific lifting legs designed for the ACGLF could cause equipment damage.

4.0 PREREQUISITE ACTIONS

None.

5.0 PERFORMANCE

5.1 ACGLF PREOPERATIONAL CHECKS

5.1.1 Waste Handler (WH), **REVIEW** Equipment Logbook for outstanding deficiencies and Action Requests.

5.1.2 **IF** any inspection fails or is unsatisfactory,
THEN NOTIFY Site Environmental Compliance (SEC) immediately for instructions on how to proceed.

5.1.3 **IF** a required inspection becomes delinquent or has failed,
THEN:

[A] Immediately **NOTIFY** the on-call Site Environmental Compliance (SEC) Representative and the Central Monitoring Room Operator of the delinquent or failed inspection.

[B] **SCHEDULE** and **COMPLETE** the required inspection.

[C] **DOCUMENT** the following and **SUBMIT** to the SEC Manager within 5 working days:

- Schedule for inspection.
- Reasons why the inspection was not performed.

- Any compensatory measures taken to offset negative impacts resulting from not performing the inspection.
- Actions to prevent further delinquencies.

[D] WHE, **GO TO** WP 15-GM1002, *Issues Management Processing of WIPP Forms,* and **ENSURE** a WIPP form is generated.

5.1.4 WH, **ENSURE** a preoperational check of the 6-ton bridge crane (WP 05-WH1407) has been completed prior to the ACGLF check.

HWFP

5.1.5 **($) COMPLETE** Attachment 1, *ACGLF Preoperational Checks and Verification,* at beginning of each shift prior to ACGLF operation. **[HWFP Table E-1]**

5.1.6 **RECORD** the following in Equipment Logbook:

- Deficiencies noted
- Corrective actions taken (e.g., outstanding or newly generated action requests)
- Equipment number
  - Lift fixture adapter equipment number, when used
- Procedure number
- In-line load cell calibration due date and WIPP I.D. number
- Sat or Problems Noted
- Date and time of preoperational check
- Signature

5.1.7 **NOTIFY** the WHE of the ACGLF preoperational status and any deficiencies.

5.1.8 **WHEN** preparing for waste handling mode,
THEN COMPLETE the needed portion of (WP 05-WH1101) attachment *TP-II Preoperational Waste Handling Mode Checklist*.

HWFP ($) Attachment 1 – ACGLF Preoperational Checks and Verification [HWFP Table E-1]

NOTE 1

Deficiencies that are corrected when discovered may be considered a satisfactory check. Deficiencies that cannot be corrected require notification of the WHE prior to operating the ACGLF.

NOTE 2

Preoperational checklist section steps may be performed in any order.

	INSPECTION	CRITERIA	SAT	N/A	UNSAT
FR1	Visually inspect the following for tightness, wear, deterioration, or damage	Shackles (pin is secured)	☐	☐	☐
		Bolts (no detectable gap between bolt head and component)	☐	☐	☐
		Kellum Grips	☐	☐	☐
		Cables	☐	☐	☐
		Nylon Tag Lines	☐	☐	☐
		Lift leg pins	☐	☐	☐
		Lifting legs (short and long)	☐	☐	☐
	Guards	All guards are in place	☐	☐	☐
	Gears	Gears are unobstructed	☐	☐	☐
	Power and Controls	Both cables from ACGLF are connected to control panel	☐	☐	☐
		POWER switch to ON and switch illuminates	☐	☐	☐
		Counterweight No. 1 in range of 178° to 182°: target 180°	☐	☐	☐
		Counterweight No. 2 in range of 002° to 358°: target 0/360°	☐	☐	☐
		Raise ACGLF off the floor	☐	☐	☐

HWFP ($) Attachment 1 – ACGLF Preoperational Checks and Verification [HWFP Table E-1]

INSPECTION	CRITERIA	SAT	N/A	UNSAT
Test Counterweight No. 1 Rotation and Indication	Hold BALANCE ROTATION No. 1 switch in clockwise (CW) position and visually confirm:			
	Counterweight moves CW	☐	☐	☐
	Balance Position indicates the change in counterweight position	☐	☐	☐
	TILT SENSOR readouts indicate change	☐	☐	☐
	Hold BALANCE ROTATION No. 1 switch in counterclockwise (CCW) position and visually confirm:			
	Counterweight moves CCW	☐	☐	☐
	Balance position indicates the change in counterweight position	☐	☐	☐
	Use Balance Rotation No. 1 switch to position the counterweight at 180°±2°	☐	☐	☐
	Counterweight moves less than 2 in. as the ACGLF tilts	☐	☐	☐
Test Counterweight No. 2 Rotation and Indication	Hold Balance Rotation No. 2 switch in clockwise (CW) position and visually confirm:			
	Counterweight moves CW	☐	☐	☐
	Balance position indicates the change in counterweight position	☐	☐	☐
	Hold Balance Rotation No. 2 switch in counterclockwise (CCW) position and visually confirm:			
	Counterweight moves CCW	☐	☐	☐
	Balance position indicates the change in counterweight position	☐	☐	☐
	Use Balance Rotation No. 2 switch to position the counterweight at 0/360°± 2°	☐	☐	☐

HWFP ($) Attachment 1 – ACGLF Preoperational Checks and Verification [HWFP Table E-1]

INSPECTION	CRITERIA	SAT	N/A	UNSAT
Test Counterweight No. 2 Rotation and Indication (con't.)	Counterweight moves less than 2 in. as the ACGLF tilts	☐	☐	☐
Lifting Legs Lock	Holding Lifting Legs No. 1, 2, and 3, switch in LOCK and visually confirm:			
	Lifting legs rotate to locked position	☐	☐	☐
	Lock indicators 1, 2, & 3 illuminate	☐	☐	☐
Lifting Legs Unlock	While holding lifting legs UNLOCK ENABLE switch in ON, hold Lifting Legs No. 1, 2, & 3 switch in UNLOCK and visually confirm:			
	Lifting legs rotate to UNLOCK position	☐	☐	☐
	Unlock indicators 1, 2, & 3 illuminate	☐	☐	☐
Standard Waste Box Lift Fixture Adapter Checks	No obvious cracks, bends, twists, or wear	☐	☐	☐
	Lift clip assemblies locked in proper position	☐	☐	☐
	Lift clip assemblies operate freely, with no binding	☐	☐	☐
Ten-Drum Overpack Lift Fixture Adapter Checks	No obvious cracks, bends, twists, or wear	☐	☐	☐
	Lift clip assemblies locked in the proper position	☐	☐	☐
	Lift clip assemblies operate freely, with no binding	☐	☐	☐
85-Gallon Drum Lift Fixture Adapter Checks	No obvious cracks, bends, twists, or wear	☐	☐	☐
	Adapter legs manually rotate freely, with no binding	☐	☐	☐